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A first report in a series on the preparation and effectiveness of teachers who are liberal arts college graduates of 15 colleges located in New York State. The study deals with preliminary analysis of data pertaining to the preparation and performance of 196 teachers who were liberal arts graduates of 1960 and were certified under 1958 New York State requirements. Subsequent reports are planned annually as follow-ups of these 196 teachers and succeeding graduates who enter teaching under New York State certification requirements.

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COOPERATIVE STUDY OF TEACHER EDUCATION IN LIBERAL ARTS COLLEGES

The First in a Series of Reports of Teacher Education Relative to the Over-all Effectiveness of Teachers Who Are Liberal Arts College Graduates

by

Eldridge E. Scales
Associate in Education Research

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

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January 1962

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Acknowledgment

This study results from the cooperation of college officials, their students and graduates who are teaching, superintendents who have employed the graduates, and staff members of the State Education Department.

Dr. Alvin P. Lierheimer, Associate in the Bureau of Teacher Education and Certification, was instrumental in bringing together the college officials and staff members of the Division of Research in Higher Education. Dr. Scales took over the study after the data had been gathered, and completed the report.

Our thanks are due all who have participated.

P.A.C.

Cooperative Study of Teacher Education in Liberal Arts Colleges

Teacher certification is based on the idea that the nature and quality of education are determined, to a great extent, by the ability and preparation of teachers. It is a means of assuring parents and the public in general that minimum standards of competence have been met. The way in which teacher certification relates to the effectiveness of teachers is of great moment to teachers, administrators, and teacher training institutions.

Many private liberal arts colleges, although not essentially teacher training institutions, have the responsibility of preparing students to meet State certification standards, within the limits of a four-year curriculum. Increased requirements of certification are of administrative, academic, and curricular concern to these institutions. Some resist change and take the position that additional quantitative changes in certification are of questionable value to teachers and their effectiveness in the classroom.

Is teaching effectiveness of first-year teachers as evaluated by superintendents affected by quantitative changes in teacher certification requirements? The purpose of this study is to provide some answer to this and related questions which have been raised about teachers who are liberal arts college graduates.

Background of the Study

In 1960 the New York State Education Department established new standards for subject certification of teachers effective September 1, 1963.

In numerous particulars, the requirements go beyond the 1958 regulations.

In the winter of 1960-61, representatives of 20 liberal arts colleges proposed a longitudinal study of evaluation and follow-up of performance of their teacher graduates. Fifteen colleges elected to participate in the study. These 15 colleges are scattered widely through the State. Eleven of the institutions serve women, of which 8 are for Catholic women. Three institutions are coeducational. A single college is for Catholic men. Thirteen are church-related institutions.

Hypotheses relating to the preparation and performance of teachers were investigated to determine differences between outstanding, average, and below average rated teachers regarding their quantity and quality of preparation and the teaching experience. Specifically, the hypotheses[1] were:

1. Quantitative changes in teacher certification requirements decrease the incidence of deficiencies of first-year teachers as identified by superintendents.

2. There are favorable differences in the quality of teacher performance during each successive year of teaching experience.

3. Favorable differences are found in the quality of preparation of each successive annual group of teachers.

4. Teachers rated by superintendents as being outstanding receive higher generalized and specific ratings on the Rating Schedule than teachers rated as being average.

---

[1]Hypotheses 1 and 2, although included, were not tested. Due to the character of the hypotheses they will be tested during later stages of the study.

5. Teachers rated as outstanding have greater quantity of preparation as expressed in terms of college semester credits of major field and education work than teachers rated as average.

6. Outstanding teachers complete their preparation with higher quality as expressed in terms of college grade point averages in major field work, education courses, and College Entrance Examination Board scores in English and mathematics than average rated teachers.

7. There are differences in the patterns of recognized strengths and weaknesses, aspects of the college program of most help, and proposed changes in college preparation between outstanding and average teachers.

Method

The present report, first of a series, is devoted to preliminary analyses of data gathered by instruments developed, refined, and designed[2] to obtain particular personal and academic information about the graduates and seniors and evaluations of the teaching effectiveness of the first-year teaching graduates. Subsequent reports will deal with follow-ups of those teachers included herein and of succeeding students who graduate and enter teaching.

The study is divided into two phases: (1) an evaluation of over-all effectiveness of teacher graduates of 1960, 1961, 1962, and 1963 who were and will be certified under the 1958 regulations; (2) an evaluation of the graduates of 1964, 1965, and 1966 who obtain certificates and enter teaching under the 1963 requirements. Comparisons will be made between successive yearly groups and, finally, between the composite groups

---

[2] The instruments are reproduced in Appendix A.

of the two phases. Interinstitutional characteristics are not under study; hence, data are not sorted by institutions.

Data from college registrars, seniors, graduates, and superintendents were needed. Inquiry forms were designed: (1) to obtain background information of the seniors, their motives for becoming teachers and their aspirations; (2) to draw out information about graduates' personal backgrounds, choices of teaching subject and grade level, and satisfactions or dissatisfactions with teaching; and (3) to obtain confidential candid evaluations of teachers from superintendents near the end of the first year of teaching.

During the spring of 1961, appropriate instruments were sent to each of the seniors, graduates, superintendents, and colleges. Data were received for 353 seniors and 196 graduates.

Findings

It is pertinent to this report to state first a few facts which describe the background of these 196 graduates. For comparative purposes, selected information on seniors will be included. A comparison of selected background information, with several exceptions, showed no real differences between seniors and teachers. (See tables 1 through 8, Appendix B.)[3] Teachers were generally graduates of public high schools. Seniors, on the other hand, counted over one-half of their group as graduates of nonpublic high schools. The difference found between the types of high schools from which teachers and seniors graduated may be due to a large proportion of nonpublic high school graduates failing to enter teaching after college graduation or it may be a sign that nonpublic

[3] Tables 1 through 23 are in Appendix B.

high school entrants in liberal arts colleges will become an increasing element in teacher supply. A second exception was the slight advantage held by the parents of seniors over teachers' parents in educational attainment. Finally, higher expectations for a larger proportion of younger brothers and sisters of teachers to attend college were held than for seniors' younger brothers and sisters. The increased proportion of younger brothers and sisters who were expected to attend college is identical to the national pattern of college-goers. Annually increasing numbers of young people are entering the Nation's colleges. One must also keep in mind that the higher percentage of younger brothers and sisters who were expected to attend college probably reflects the aspirations, high hopes, and increasing appreciation of the worth of education.

Teachers and seniors were sons and daughters of gainfully employed fathers and housewives. They were children of families in which the older children had gone to college.

The decision to enter the teaching profession as a career was affected most heavily by elementary and high school teachers and parents and relatives. Teachers and seniors were altruistic in their reasons for becoming teachers and were highly motivated. Reasons which may be defined as becoming teachers for expediency, e.g., temporary employment prior to marriage, were of minor weight.

The differences in the quality of teachers each successive year were examined by an investigation of hypothesis 3: There are favorable increases in the quality of preparation of teachers each successive year. Seniors are prospective teachers and will be employed as teachers next year. Therefore, the quality of their preparation should be higher than presently employed teachers.

As shown in table 1, in the area of quality of preparation expressed in terms of teachers receiving Regents College Scholarships, Advanced Placement, and earned mean grade point averages in the major field and education, teachers exceeded seniors. However, for none of these comparisons was the difference between means of the two groups significant. A converse relationship was found to exist for Regents College Scholarships and performances on CEEB English and mathematics; the difference between English means was significantly in favor of the seniors. Although not statistically significant, the difference between the means of major field grade point average and CEEB mathematics were close enough to indicate a slight trend (P was about .07 in each case).

The higher mean scores in CEEB English and mathematics by seniors probably reflect the recent impetus given to major academic subjects in the secondary school and also underscore the increasing selectivity and rigid admissions and retention standards now in practice in colleges. Future teachers may be demonstrably even better. Tables 9 through 12, Appendix B, present detailed distributions of performances by teachers and seniors.

The teachers were grouped on the basis of the ratings assigned by the superintendents. Only 3 (1.7%) teachers were rated as being inferior; they are not included in this analysis. (See table 13, Appendix B.) Although school officials sometimes show considerable favorable bias in their ratings and, thus, cast doubt on the meaningfulness of their ratings, it was felt that this initial rating should be relatively unstructured. In this way, bases for a more structured forced-choice method of rating are provided.

Table 1

Summary of Comparisons of Quality of Preparation of Teachers and Seniors

Area of preparation	Teachers					Seniors				
	N	Per cent or mean	Difference between means favoring teachers	t-ratio	P	N	Per cent or mean	Difference between means favoring seniors	t-ratio	P
Regents College Scholarship	196	12.8 +	--	--	--	353	15.0	2.2%	.72	a
Advanced Placement	196	0.51*	.23	.06	a	353	0.28	--	--	--
Major Field Average Grade	188	2.91	.14	1.57	.07	307	2.77	--	--	--
Education Average Grade	183	2.90	.15	1.14	a	307	2.82	--	--	--
CEEB English	124	484.6	--	--	--	246	501.7	17.1	3.64	<.01
CEEB Mathematics	125	522.6	--	--	--	246	531.0	8.4	1.92	.07

+12.8 per cent of the teachers held Regents College Scholarship.
*.51 per cent of teachers were awarded Advanced Placement.
[a]Greater than .10; deemed insufficiently conclusive.

Are teachers rated as being outstanding by superintendents distinguished by greater use of selected bases for ratings than average teachers? Although not completely comparable to hypothesis 4, due to the structure of the rating schedule, a comparison of bases upon which these two groups of teachers were rated revealed order differences on three of the six bases. As shown in table 2, teachers of both groups were rated on the same bases. The results of the percentage frequency of utilization favoring any one group were inconclusive. A basis not utilized was subject matter mastery; it is likely that this basis was considered as a component of teaching techniques, mechanics, and knowledge.

Do outstanding and average teachers differ with respect to the quantity of preparation as expressed in terms of number of semester credits in major field work and education courses? Are the differences, if any, in favor of the outstanding teacher? As summarized in table 3, and detailed in tables 14 and 15, Appendix B, outstanding teachers earned a higher mean number of credits in major field work and education courses than average teachers. However, the difference between means of the two groups was significant only for mean credits in major field work. The ranges of the distributions were relatively small. The number of prescribed education courses for certification is well-known; and since liberal arts colleges are not essentially colleges of education, selection is limited. Nevertheless, the pattern of differences favored the outstanding teachers for each comparison which must be considered as lending support to hypothesis 5.

In terms of college grade point averages in the major field, education courses, and CEEB mean scores, is the preparation of outstanding

Table 2

Bases for Ratings by Superintendents Differentiating Outstanding and Average Teachers

Basis for rating	Outstanding teachers		Average teachers	
	Per cent frequency of mention (N=146)	Rank order	Per cent frequency of mention (N=123)	Rank order
1. Teaching techniques, mechanics knowledge	34.9	1	37.4	1
2. Personal qualities	31.5	2	33.3	2
3. Rapport with students	16.4	3	8.9	4
4. Rapport with faculty, parents	11.0	4	4.2	5
5. Discipline, problem handling	4.8	5	15.4	3
6. Extra class duties	1.4	6	0.8	6
Total	100.0	-	100.0	-

Table 3

Summary of Comparisons of Aspects of Quantity of Preparation of Outstanding and Average Teachers

Aspect of preparation	Outstanding teachers (N = 78)				Average teachers (N = 103)			
	Mean credits	Amount favored by differences between M's	t-ratio	P	Mean credits	Amount favored by differences between M's	t-ratio	P
Major field	44.9	4.2	2.36	< .02	40.7	--	--	--
Education work	19.3	0.8	1.01	a	18.5	--	--	--

[a]Greater than .10

teachers of higher quality than average teachers? The pattern of differences strongly favored the outstanding teachers. Table 4 summarizes these data; tables 16 through 18 in Appendix B detail distributions of these data. Although earning higher mean grades than average teachers, only one of the comparisons revealed a significant difference between the means favoring outstanding teachers. Apparently superintendents' ratings did discriminate between outstanding teachers and average teachers. Data tend to support hypothesis 6.

Notwithstanding differences in CEEB English and mathematics mean scores, there was considerable overlap in scores made by outstanding and average teachers. In the English examination, 32.8 per cent of the average group scored above the outstanding teachers' mean score. (See table 19, Appendix B.)

Further analysis of scores showed that 41.9 per cent of the average teachers earned mathematics scores above the mean score of outstanding teachers. The overlap among teachers in these two groups cautions against any generalization that all outstanding teachers' performances on CEEB English and mathematics examinations are always superior to average teachers' performances.

Do outstanding and average teachers differ in patterns of strengths and weaknesses realized from the teaching experiences? Do they disagree in the elements of the college program identified as being of most help in the teaching experience? Are the changes in college characteristics they propose of constrasting natures? A summary of comparisons of patterns of personal realizations is shown in table 5. Detailed presentations of these data are presented in tables 20 through 23 in Appendix B.

Table 4

Summary of Comparisons of Aspects of Quality of Preparation of Outstanding and Average Teachers

Areas of preparation	Outstanding teachers (N = 78)				Average teachers (N = 103)			
	Mean	Amount favored by differences between M's	t-ratio	P	Mean	Amount favored by differences between M's	t-ratio	P
Major field grades	3.03	.23	1.05	a	2.80	--	--	--
Education courses grades	2.90	.04	0.03	a	2.86	--	--	--
CEEB English	504.6	35.8	2.31	.03	468.8	--	--	--
CEEB Mathematics	458.4	5.7	.40	a	452.7	--	--	--

[a]Greater than .10

Summary of Comparisons of Personal Realizations Most Frequently Stated by Outstanding and Average Teachers

Personal realizations	Outstanding teachers		Average teachers	
	Per cent frequency of mention	Rank order	Per cent frequency of mention	Rank order
1. Strengths				
Personal qualities	35.6	1	24.0	2
Subject field mastery	29.0	2	34.4	1
Discipline, rapport with students	17.1	3	17.1	3
2. Weaknesses				
Methods	26.2	1	36.2	1
Discipline	19.7	2	14.5	2
Subject field mastery	11.4	3	13.3	3
3. Aspects of college program of most help				
Subject field mastery	28.5	1	34.7	1
Student teaching	21.0	2	27.7	2
Methods	17.3	3	16.8	3
4. Desired changes				
More practical methods	26.2	1	34.3	1
More student teaching	26.2	2	31.3	2
More courses in subject field	24.6	3	11.9	3

Of the twelve comparisons, the patterns were dissimilar in only two, personal qualities and subject field mastery. The data failed to support the hypothesis (7) that there are significant differences in the patterns of realized strengths, weaknesses, proposed changes in college preparation, and elements of the college program of most help between outstanding and average teachers.

As reported in other studies of teacher classroom behavior, discipline was prominent in its identification as a strength and a weakness by these two groups of teachers. It would appear that outstanding teachers may feel more secure about subject field mastery than average teachers.

Throughout the comparisons between these two pairs of groups ran a rather consistent theme: These teachers expressed both a lack of, and need for, more practical methods courses, more student teaching, and an increased number of courses in the subject (teaching) field. Inspection of areas identified by superintendents in which they felt teachers could have been better prepared repeated this theme. Student teaching and methods, in that order, were prominent as areas in which teachers could have been better prepared.

Summary and Conclusions

A group of 78 teachers rated outstanding was compared with a group of 103 teachers rated average. All were graduates of liberal arts colleges. Five[4] hypotheses were tests. Results warrant the following conclusions:

---

[4]Hypotheses 1 and 2 were not tested. They will be tested during later stages of the study.

3. The hypotheses that there are differences in the quality of preparation of each successive annual group of teachers was not supported conclusively. Only in major field average grade and CEEB mathematics mean scores did the differences approach significance (P = .07). The difference between CEEB English means of the two groups was statistically significant in favor of the seniors who are prospective teachers and will be employed as teachers next year. Although the differences between the means of the two groups being compared with respect to each of the elements of teacher preparation, Regents College Scholarships, Advanced Placement, and education course average grade were not found to be significantly different, teachers exceeded seniors. The data do not support the hypothesis conclusively.

4. The hypothesis that teachers rated outstanding are distinguished by greater use of selected bases for ratings by superintendents than teachers rated average was not accepted without reservation. A comparison of bases upon which outstanding and average teachers were rated revealed rank-order differences on three of the six bases. Results were inconclusive.

5. The hypothesis that teachers rated as outstanding have greater quantity of preparation as expressed in terms of college semester credits in major field work and education courses than teachers rated average may be considered as being supported but not conclusively. The differences between means of the two groups was statistically significant only for mean credits in major field work. However, the pattern of differences for the two groups favored the outstanding teachers.

6. The hypothesis that outstanding teachers complete their preparation with higher quality as expressed in terms of college grade point

averages in major field work, education courses, and CEEB scores in English and mathematics than average teachers was considered as being supported by the pattern of differences strongly favoring the outstanding teachers. Although outstanding teachers earned higher mean grades and CEEB scores than average teachers, only one of the comparisons, CEEB English means, significantly favored the outstanding teachers.

7. The hypothesis that there are differences in the patterns of recognized strengths and weaknesses, aspects of the college program of most help, and proposed changes in college preparation between outstanding and average teachers was not supported conclusively. The twelve comparisons revealed pattern dissimilarities only in personal qualities and subject field mastery.

In terms of the total results of the testing of the hypotheses, the findings of the study were generally inconclusive. Outstanding teachers were favored, although not always significantly, by the general pattern of the differences. This finding takes on added importance in view of the fact that the teachers previously were not selected as representative of outstanding and average teachers. One limitation in considering the inconclusiveness of the present findings is the relatively unstructured rating schedule which probably depressed certain aspects which might have been brought into bolder relief. The universality of the present results will be tested upon the conclusion of the present study. Subsequent investigations of successive groups of liberal arts college graduates may provide more conclusive evidence.

This study will be continued for a number of years with the fifteen colleges and with the employers of their graduates. Subsequent reports are planned at the end of each year.

Appendix A

Inquiry Forms

Cooperative Study of Teacher Education in Liberal Arts Colleges

Name _____ Address _____

Some of the questions which follow may at first seem to be irrelevant but they are designed to throw light upon characteristics and circumstances known to be of importance in studies of beginning teachers. Your answers will be held in confidence.

Please return this form, completed, as promptly as possible to the office indicated on the covering letter.

About You and Your Family

1. Check below (once in each column) the highest educational level attained by your parents.

	Father	Mother
a. College graduate or more	____	____
b. Some college without graduating	____	____
c. Business or specialized school--nondegree	____	____
d. High school graduate	____	____
e. Some high school without graduating	____	____
f. No high school	____	____

2a. How many older brothers and sisters in your family? _____

2b. How many went to college? _____

3a. How many younger brothers and sisters in your family? _____

3b. How many do you think will go to college? _____

4. What is the occupational status of your parents?

   a. Father: Working _____, seeking work _____, other _____

   b. Mother: Housewife only _____, working _____, seeking work _____, other _____

5. In what year were you born? _____

6. About what calendar year did you decide to become a teacher? _____

7. Who was the main influence behind your decision to become a teacher? (check one)

   a. One of your parents or relatives _____
   b. An elementary or high school teacher _____
   c. A high school counselor _____
   d. A college teacher _____
   e. A college counselor _____
   f. One or more of your friends _____
   g. Any other _____ (specify) _____

8. What was your chief motive for becoming a teacher? (check one)

   a. Desire to communicate truth _____
   b. Security that teaching affords _____
   c. Liking for children _____
   d. Steady financial remuneration _____
   e. Temporary employment prior to marriage _____
   f. Desire to help others _____
   g. Alternative to another vocational goal _____
   h. Teaching as a passport to administrative roles _____
   i. Any other _____ (specify) _____

About Your Present Teaching

9. What subjects are you now teaching and in what grade? If teaching more than one subject so indicate by number of classes in each subject and grade.

	Indicate grade
a. English	_____
b. Mathematics	_____
c. Social studies	_____

Form G (cont'd)

About Your Present Teaching (continued)

d. Science _____ _____
(specify)

e. Foreign language _____ _____
(specify)

f. Other _____ _____
(specify)

10. As of this time in your first year of teaching, what is your reaction to teaching as a career?

	Check one
a. Satisfaction warrants continuing	_____
b. Uncommitted about the future	_____
c. Dissatisfied with teaching	_____
d. Satisfied but plan to marry and may discontinue teaching	_____
e. Other _____ (specify)	_____

11. What do you think is your primary asset for success in teaching this year?

_____

_____

12. What do you feel is your greatest weakness in teaching this year?

_____

_____

13. In what respects was your college program of the most help for teaching?

_____

_____

14. In what respects would you now wish to have changed your college preparation for teaching?

_____

_____

Form G (cont'd)

About Your Future

15. What are your vocational plans for the next five years?

_____

_____

16. What additional higher education will be required, if any, to achieve your goal as indicated above?

_____

_____

17. Please add any pertinent thoughts that occur to you as the result of answering these questions.

_____

_____

18. Please indicate any change in address that may be appropriate. We will plan to contact you again in this study during the next few years.

_____

_____

Form S Code _____

Cooperative Study of Teacher Education in Liberal Arts Colleges

Name _____ April 5, 1961

This inquiry is directed to seniors in the college who are meeting the requirements for certification to teach. It is part of a study being made by about twenty other liberal arts colleges. The study will continue for several years so you will be contacted again during your first year of teaching. Our objective is to improve the program of education we offer prospective teachers.

Some of the questions which follow may at first seem to be irrelevant but they are designed to throw light upon characteristics and circumstances known to be of importance in studies of beginning teachers. Your answers will be held in confidence.

About You and Your Family

1. Check below (once in each column) the highest educational level attained by your parents.

	Father	Mother
a. College graduate or more	___	___
b. Some college without graduating	___	___
c. Business or specialized school--nondegree	___	___
d. High school graduate	___	___
e. Some high school without graduating	___	___
f. No high school	___	___

2a. How many older brothers and sisters in your family? _____

2b. How many went to college? _____

3a. How many younger brothers and sisters in your family? _____

3b. How many do you think will go to college? _____

4. What is the occupational status of your parents?

   a. Father: Working ____, seeking work ____, other ____

   b. Mother: Housewife only ____, working ____, seeking work ____, other ____

Form S (cont'd)

5. In what year were you born? _____

6. About what calendar year did you decide to become a teacher? _____

7. Who was the main influence behind your decision to become a teacher? (check one)

   a. One of your parents or relatives _____

   b. An elementary or high school teacher _____

   c. A high school counselor _____

   d. A college teacher _____

   e. A college counselor _____

   f. One or more of your friends _____

   g. Any other _____ _____
   (specify)

8. What was your chief motive for becoming a teacher? (check one)

   a. Desire to communicate truth _____

   b. Security that teaching affords _____

   c. Liking for children _____

   d. Steady financial remuneration _____

   e. Temporary employment prior to marriage _____

   f. Desire to help others _____

   g. Alternative to another vocational goal _____

   h. Teaching as a passport to administrative roles _____

   i. Any other _____ _____
   (specify)

Form E

Code _____

Cooperative Study of Teacher Education in Liberal Arts Colleges

This is a confidential inquiry about _____

who was graduated from this College in 1960.

School _____ Address _____

Official responding _____ Title _____

1. How do you rate this person's overall effectiveness as a beginning teacher? (check)

   Outstanding _____, Average _____, Inferior _____

2. What is the basis for the above rating--

   Outstanding, average, or inferior qualities?

   _____

   _____

3. For the best future professional development of this teacher, what do you recommend? (e.g., additional subject matter preparation, additional courses in professional education, etc.) _____

   _____

4. In your opinion, how could this teacher have been better prepared in college? _____

   _____

5. As of this time, what do you recommend for this teacher?

   a. Remain in your school system _____

   b. Change to another school system _____

   c. Discontinue teaching as a career _____

Retain one copy for your file and future reference in case of follow-up and send one copy to the office indicated on the covering letter.

F 2802

Appendix B

Tables 1 - 23

Table 1

Type of High Schools from Which Teachers and Seniors Were Graduated

Types of high school	Per cent of teachers	Per cent of seniors
Public	60.4	46.5%
Parochial	24.7	22.2
Private	14.9	31.3
Total above	100.0	100.0
No answer (number)	2	1
Total number	196	353

Table 2

Employment Status of the Father As Expressed by Teachers and Seniors

Occupational status	Per cent of teachers	Per cent of seniors
Working	82.8	86.6%
Seeking work	0.6	1.4
Other	16.6	12.0
Total above	100.0	100.0
No answer (number)	33	3
Total number	196	353

Table 3

Employment Status of the Mother as Stated by Teachers and Seniors

Occupational status	Per cent of teachers	Per cent of seniors
Housewife only	57.7	56.1%
Working	35.0	39.9
Seeking work	1.8	0.3
Other	5.5	3.7
Total above	100.0	100.0
No answer (number)	33	--
Total number	196	353

Table 4

Educational Level of the Father as Stated by Teachers and Seniors

Educational level	Per cent of teachers	Per cent of seniors
College graduate	23.0	23.9
Some college attendance	10.5	11.6
Business or specialized training	8.7	12.2
High school graduate	14.3	19.0
Some high school	20.5	16.5
No high school	23.0	16.8
Total above	100.0	100.0
No answer (number)	35	1
Total number	196	353

Table 5

Educational Level of the Mother as Stated by Teachers and Seniors

Educational level	Per cent of teachers	Per cent of seniors
College graduate	11.1	19.2
Some college attendance	10.5	8.9
Business or specialized training	15.4	17.4
High school graduate	26.6	25.4
Some high school	21.6	17.1
No high school	14.8	12.0
Total above	100.0	100.0
No answer (number)	34	3
Total number	162	350

Table 6

Older and Younger Siblings and Their Attendance in College as Indicated by Teachers and Seniors

Group	Older siblings			Younger siblings		
	Number	Went to college		Number	Expected to attend college	
		Number	Per cent		Number	Per cent
Teachers	129	92	71.3	176	150	85.2
Seniors	317	215	67.8	465	369	79.4

Table 7

The Person Most Influential in the Teacher-Career Decision as Identified by Teachers and Seniors

Person	Per cent of teachers	Per cent of seniors
Elementary or high school teacher	34.8	29.3
Parents, relatives	27.3	35.8
College teacher	11.8	10.6
College counselor	5.6	1.5
Friend(s)	5.6	3.2
High school counselor	0.6	1.5
Any other	14.3	18.2
Total above	100.0	100.0
No answer (number)	35	12
Total number	196	353

Table 8

Reasons for Becoming a Teacher as Expressed by Teachers and Seniors

Reason	Per cent of teachers	Per cent of seniors
Desire to communicate truth	28.8	19.8
Desire to help others	25.8	32.7
Liking for children	22.1	20.3
Security afforded by teaching	8.0	10.6
Alternative to another goal	4.9	4.9
Temporary employment	2.5	0.9
Teaching as a passport to an administrative role	1.2	1.1
Any others	6.7	9.7
Total above	100.0	100.0
No answer (number)	33	4
Total number	196	353

Table 9

Mean Grade Earned in Major Field by Teachers and Seniors

Major field	Number of teachers (N = 188)			Average grade	Number of seniors (N = 278)			Average grade
	A	B	C		A	B	C	
Social studies	7	26	9	2.95	6	26	19	2.75
Foreign language	4	24	6	2.94	5	17	2	3.13
English	6	22	8	2.94	11	42	29	2.78
Science	2	13	4	2.89	1	10	8	2.63
Mathematics	1	12	3	2.88	6	24	13	2.84
Education	4	7	2	3.15	5	10	13	2.71
Other combination	3	13	12	2.68	2	13	16	2.55
Total above	27	117	44	2.91	36	142	100	2.77

Table 10

Mean Grade Earned in Education by Teachers and Seniors, by Major Fields

Major field	Number of teachers (N = 183)			Average grade	Number of seniors (N = 278)			Average grade
	A	B	C		A	B	C	
Social studies	7	26	9	2.95	7	28	16	2.82
Foreign language	1	22	10	2.73	4	15	4	3.00
English	7	22	7	3.00	9	51	23	2.83
Science	4	8	4	3.00	2	12	5	2.84
Mathematics	1	14	1	3.00	8	29	6	3.05
Education	4	6	3	3.08	7	8	13	2.79
Other combinations	1	17	9	2.70	2	16	13	2.65
Total above	25	115	43	2.90	39	159	80	2.85

Table 11

Percentage Distribution of CEEB Scores in English for Teachers and Seniors

Scores	Per cent of CEEB norm group	Teachers		Seniors	
		Number	Per cent	Number	Per cent
750 - 799	2	--	--	1	0.4
700 - 749	6	--	--	1	0.4
650 - 699	8	7	5.6	14	5.7
600 - 649	14	6	4.8	21	8.5
550 - 599	14	12	9.7	40	16.3
500 - 549	16	27	21.8	55	22.4
450 - 499	17	22	17.7	37	15.0
400 - 449	12	33	26.6	38	15.4
350 - 399	8	12	9.7	25	10.2
300 - 349	2	5	4.0	13	5.3
250 - 299	Less than 1%	--	--	1	0.4
Total	100	124	100.0	246	100.0

Table 12

Percentage Distribution of CEEB Scores in Mathematics for Teachers and Seniors

Scores	Per cent of CEEB norm group	Teachers		Seniors	
		Number	Per cent	Number	Per cent
700 - 749	4	--	--	1	0.4
650 - 699	6	1	0.8	3	1.2
600 - 649	14	7	5.6	18	7.3
550 - 599	15	6	4.8	29	11.8
500 - 549	23	18	14.4	53	21.5
450 - 499	15	31	24.8	56	22.8
400 - 449	13	32	25.6	40	16.3
350 - 399	6	19	15.2	33	13.4
300 - 349	3	11	8.8	8	3.3
250 - 299	Less than 1%	--	--	5	2.0
Total	100	125	100.0	246	100.0

Table 13

Ratings of Over-all Effectiveness of Teachers as Judged by Superintendents

Rating	Number	Per cent
Outstanding	78	42.4
Average	103	55.9
Below average	3	1.7
Sub-total	184	100.0
No Answer	12	--
Grand total	196	100.0

Table 14

Distribution of Semester Credits in Teaching Subject Area for Teachers and Seniors

Credits	Teachers		Seniors	
	Number	Per cent	Number	Per cent
70 - 79	10	5.2	4	1.2
60 - 69	7	3.6	13	4.0
50 - 59	26	13.4	51	15.6
40 - 49	56	28.8	116	35.5
30 - 39	84	43.3	118	36.1
20 - 29	10	5.2	24	7.3
10 - 19	1	0.5	1	0.3
Sub-total	194	100.0	327	100.0
No answer	2	--	26	--
Grand total	196	100.0	353	100.0

Table 15

Distribution of Semester Credits in Education
for Teachers and Seniors

Credits	Teachers		Seniors	
	Number	Per cent	Number	Per cent
50 - 59	5	2.6	1	0.3
40 - 49	2	1.1	21	6.4
30 - 39	4	2.2	10	3.0
20 - 29	70	37.0	117	35.5
10 - 19	94	49.7	172	52.1
0 - 9	14	7.4	9	2.7
Sub-total	189	100.0	330	100.0
No answer	7	--	23	--
Grand total	196	100.0	353	100.0

Table 16

Distribution of Average Grades Earned in the Major Field by Outstanding and Average Teachers

Grade	Outstanding teachers		Average teachers	
	Number	Per cent	Number	Per cent
A	15	19.7	7	7.2
B	48	63.2	64	66.0
C	13	17.1	26	26.8
Sub-total	76	100.0	97	100.0
No answer	2	--	6	--
Grand total	78	100.0	103	100.0

Table 17

Distribution of Average Grades Earned in Education by Outstanding and Average Teachers

Grade	Outstanding teachers		Average teachers	
	Number	Per cent	Number	Per cent
A	9	12.3	11	11.6
B	48	65.8	60	63.2
C	16	21.9	24	25.2
Sub-total	73	100.0	95	100.0
No answer	5	--	8	--
Grand total	78	100.0	103	100.0

Table 18

CEEB English and Mathematics Means and Differences Between Means of Outstanding and Average Teachers

CEEB examination	Number	Group of teachers	Mean	Difference between means
English	78	Outstanding	504.0	35.2*
	103	Average	468.8	
Mathematics	78	Outstanding	458.4	5.7
	103	Average	452.7	

*Significant at 3% level

Table 19

Percentage Distribution of CEEB English and Mathematics Scores for Outstanding and Average Teachers

Scores	CEEB English		CEEB Mathematics	
	Outstanding teachers N = 78	Average teachers N = 103	Outstanding teachers N = 78	Average teachers N = 103
650 - 699	7.1	4.9	--	--
600 - 649	5.4	3.3	8.9	3.2
550 - 599	10.7	8.2	1.8	8.1
500 - 549	25.0	21.3	17.9	11.3
450 - 499	23.2	13.1	25.0	27.4
400 - 449	25.0	27.9	21.4	27.4
350 - 399	3.6	13.1	16.1	14.5
300 - 349	--	8.2	8.9	8.1
Total	100.0	100.0	100.0	100.0

Table 20

Primary Assets to Teaching as Identified by Outstanding and Average Teachers

Primary asset	Outstanding teachers		Average teachers	
	Number	Per cent	Number	Per cent
Personal qualities	27	35.6	23	24.0
Subject field mastery	22	29.0	33	34.4
Rapport with students, discipline	13	17.1	19	19.8
Background and training	5	6.6	4	4.2
Good liberal education	3	3.9	3	3.1
Experience	3	3.9	3	3.1
Psychological understanding of children	3	3.9	3	3.1
Teaching techniques	--	--	8	8.3
Total	76	100.0	96	100.0

Table 21

Comparison of Greatest Weaknesses as Expressed by Outstanding and Average Teachers

Greatest weakness	Outstanding teachers		Average teachers	
	Number	Per cent	Number	Per cent
Methods, planning	16	26.2	30	36.2
Lack of experience	12	19.7	10	12.0
Discipline	12	19.7	12	14.5
Subject field mastery	7	11.4	11	13.3
Poor rapport with students	4	6.6	8	9.6
Personal qualities	4	6.6	4	4.8
Handling problem children	3	4.9	3	3.6
Administrative details	2	3.3	--	--
Planning for individual differences	1	1.6	5	6.0
Total	61	100.0	83	100.0

Table 22

Comparison of Element of College Program of Most Help to Outstanding and Average Teachers

Aspects of most help	Outstanding teachers		Average teachers	
	Number	Per cent	Number	Per cent
Subject matter mastery	23	28.5	35	34.7
Student teaching	17	21.0	28	27.7
Methods courses	14	17.3	17	16.8
Broad liberal arts training	12	14.8	13	12.9
Training in child psychology	9	11.1	6	5.9
Small college with personal conferences	1	1.2	--	--
Extra-curricular activities	1	1.2	1	1.0
Two fields plus general background	1	1.2	--	--
None	3	3.7	1	1.0
Total	81	100.0	101	100.0

Table 23

Changes in Teaching Preparation Outstanding and Average Teachers Would Make

	Outstanding teachers		Average teachers	
	Number	Per cent	Number	Per cent
More practice teaching, less courses	16	26.2	23	34.3
More practice teaching, less theory, no other responsibility	16	26.2	4	6.0
More course in subject field	15	24.6	21	31.3
More courses: English, rhetoric	4	6.6	2	3.0
Fewer educational courses	3	4.9	3	4.5
Different specialty combination	3	4.9	5	7.5
More courses: psychology, tests and measurement	2	3.3	8	11.9
Earlier teaching situation	2	3.3	1	1.5
Total	61	100.0	67	100.0